

# alpha-pH 800

C O N T R O L L E R

## alpha-pH 800 pH/ORP Controller



- Application Specific Integrated Circuit (ASIC)
- pH or ORP Mode
- Menu-driven SETUP Program
- Push-button Auto Calibration
- Limit Control
- Independent Hysteresis Bands
- Symmetrical Operation For Electrically Noisy Environments



- Dual Setpoints
- On/Off Timer Delays
- 4-20 mA Transmitter Output
- Non-volatile Memory
- Pt100 Or Pt1000 ATC Sensor

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Featuring the powerful Eutech Application Specific Integrated Circuit (ASIC), the alpha pH 800 offers six sub menus in its menu-driven SETUP program for configuration of the controller, either for pH or ORP applications.

#### SETTING UP THE CONTROLLER

Configuration is quick and easy via 4-button splash-proof tactile keypad. All relays are automatically de-energized when in the 'SETUP' or 'CALIBRATION' modes, safeguarding process operation.

#### OPERATION IN ELECTRICALLY NOISY ENVIRONMENTS

The pH 800 operates well in applications with electrical interference. Simply configure to the symmetrical mode of operation.

#### NON-VOLATILE MEMORY

Equipped with a EEPROM, all configured settings and calibration data are retained permanently till re-programmed. All settings can be reset to the factory default values, if required.

#### CALIBRATION

Access to the calibration mode is possible by a single button selection. Choose from seven calibration buffer values: pH 1.00, 4.00, 6.86, 7.00, 9.00, 9.18 and 10.00. Electrode slope and offset is displayed before and after calibration has been performed.

#### TEMPERATURE COMPENSATION

Both automatic and manual temperature compensation is available. On-line temperature calibration is available in the automatic temperature compensation (ATC) mode. Either a Pt 1000 or Pt100, two or three-wire system can be used. Manual temperature compensation mode allows temperature compensation for process and calibration temperatures.

#### CONTROL ACTION AND SET POINTS

Two set points are provided for operation in the limit control mode. Additional control is provided in the form of independent timer delay. Rapid contact switching of relays is prevented by hysteresis band selection available for each set point.

#### HI/LO SETTING

Each set point can be programmed to operate as 'Hi' or 'Lo', independently.

#### OUTPUT

4-20mA output is galvanically isolated with a maximum load of 600W.

#### INSTALLATION

Designed to international 1/4 DIN size, the alpha pH 800 is easy to install with the accessories provided. Detachable plug-in connectors offer quick and easy attachment or removal of wires from the controller. Front panel is rated IP54 and protected from electromagnetic interference with 'CE' certification.

#### WARRANTY

Eutech Instruments warrants its controller free from manufacturing defects for 1 year and electrode for 6 months.

## SPECIFICATIONS

### alpha-pH 800 Controller

pH Range	-2.00 to +16.00 pH
Resolution/Accuracy	0.01 / ±0.01 pH
mV Range	-1000 to +1000 mV
Resolution/Accuracy	1 / ±1 mV
Temperature	-9.9 to +125.0 °C
Resolution/Accuracy	0.1 / ±0.5 °C
Sensor	Pt 100 / Pt 1000 (Jumper selectable)
Temperature Compensation	Auto / Manual (Reference at 25.0 °C)

### Set-point And Controller Functions

Function (Switchable)	Set-point, Limit controller
Pickup / Dropout Delay	0 to 2000 Sec.
Switching pH/ORP Hysteresis	0.1 to 1 pH / 10 to 100 mV
Contact Outputs, Controller	2 Potential-free change-over contacts
Switching Voltage / Current / Power	Max. 250 VAC / Max. 3A / Max. 600 VA

### Electrical Data And Connections

Power Requirements	110 / 220 VAC (Jumper selectable), 48 to 62 Hz
Signal Output / Load	4 to 20 mA, Galvanically isolated / Max. 600 W
pH / ORP Input	BNC
Connection Terminal	Terminal blocks 5-pole / 17-pole, removable
Main Fuse / Fine Wire Fuse	Slow-blow 250 V / 100 mA

### EMC Specifications

Emissions	According to EN 50081-1
Susceptibility	According to EN 50082-1

### Environmental Conditions

Ambient Temp. Operating Range / Rel. Humidity	0 to +50 °C / 10 to 95 °C, Non-condensing
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### Mechanical Specifications

Dimensions (Control Panel)	175 x 96 x 96 mm
Housing - L x H x W	
Weight	Max. 0.7 kg
Insulation (Front / Housing)	IP 54 / IP 40

## ORDERING INFORMATION

Order No.	Item
EC-PHCTP0801	alpha-pH 800 pH/ORP controller, 110 VAC operation
EC-PHCTP0802	alpha-pH 800 pH/ORP controller, 220 VAC operation
EC-ARTSO-05B	General purpose pH electrode, 5-metre cable, BNC connector
EC-ARHTTSO-05B	High temperature pH electrode, 5-metre cable, BNC connector
EC-ARGTSO-05B	pH electrode with potential matching pin, 5-metre cable, BNC connector
EC-100GTSO-05B	pH electrode with Pt 100 and potential matching pin, 5-metre cable, BNC connector
EC-HTPTTSO-05B	Platinum ORP electrode (high temperature) with potential matching pin, 5-metre cable, BNC connector
EC-HTAUTSO-05B	Gold ORP electrode (high temperature) with potential matching pin, 5-metre cable, BNC connector

\* Extension cables available

Eutech also provides controller accessories and calibration standards. Refer to separate brochures for information.

Note: We reserve the right to make changes, improvements and modifications to products shown.

Distributed By:

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Wide selection of pH and ORP sensors to give reliable and accurate measurements. Teflon reference junction prolongs life-span with quick and easy maintenance.



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